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## **EXHIBIT D**

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**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

CELLULAR COMMUNICATIONS  
EQUIPMENT LLC,

Plaintiff,

V.

HMD GLOBAL OY,

Defendant.

§ § § § §

Case No. 2:20-CV-00078-JRG

## JURY TRIAL DEMANDED

**INVALIDITY CONTENTIONS OF DEFENDANT HMD GLOBAL OY**

Under P.R. 3-3 of the Rules of Practice for Patent Cases before the Eastern District of Texas and the Docket Control Order governing this action, defendant HMD Global Oy hereby provides its invalidity contentions regarding claims 1, 2, 3, 4, and 8 of U.S. Patent No. 7,218,923, which plaintiff Cellular Communications Equipment LLC identified in its Disclosure of Asserted Claims and Infringement Contentions under P.R. 3-1.

Consistent with the Rules of Practice for Patent Cases before the Eastern District of Texas, the Local Rules of this Court, and the Federal Rules of Civil Procedure, defendant may amend these invalidity contentions as appropriate, including if plaintiff provides any information that it failed to provide in its disclosures under P.R. 3-1 and 3-2, or amends its disclosures under P.R. 3-1 or 3-2 disclosures in any way, whether explicitly or implicitly. Further, because discovery has only recently begun and defendant has not yet completed its search for and analysis of relevant prior art, defendant may revise, amend, or supplement these disclosures, including identifying and relying on additional references, should defendant's further search and

analysis yield additional information or references, including information learned through third-party discovery. Further, defendant may revise, amend, or supplement these disclosures, including identifying and relying on additional references, in response to the Court's findings regarding claim construction, the priority date of the asserted patent, or in response to positions that plaintiff or any expert witness retained by plaintiff may take concerning claim construction, infringement, or invalidity of the asserted patent. Further, defendant may revise, amend, or supplement these disclosures, including identifying and relying on additional references, in response to arguments plaintiffs present in other proceedings regarding the asserted patent, whether before this Court, another district court, the Patent Office, or any appellate body. Further, defendant may revise, amend, or supplement these disclosures, including identifying and relying on additional references, should it later locate additional relevant documents.

Although defendant has included in these disclosures claim charts addressing particular teachings and disclosures of the prior art, which may disclose the elements of the asserted claims explicitly, implicitly, or inherently, persons having ordinary skill in the art may and often do view an item of prior art as a whole and in the context of other publications and literature and, to understand and interpret any specific statement or disclosure within a prior art reference, would rely on other information within the reference, along with other publications and their general scientific knowledge in the context of other publications, literature, products, and understanding. As a result defendant's cited portions of prior art are merely exemplary, and defendant will rely on all of the cited prior art references rather than only the quoted or cited portions, as well as on other documents and testimony for any purpose, including for example to aid in understanding and interpreting the cited portions, to provide relevant context, to provide additional evidence

that the prior art discloses a claim limitation, to establish bases for and motivations to combine references. Defendant may rely on prior art identified in these disclosures; other prior art that defendant identifies in later disclosures; corroborating references, documentation, source code, products, and testimony, including materials defendant obtains through further investigation and third-party discovery of the prior art identified in these disclosures, that demonstrates the functionality identified in these disclosures; references and other documents showing the state of the art at the relevant time, whether or not those references and other documents themselves qualify as prior art, and fact or expert testimony to provide context to or aid in understanding the any of the foregoing.

Although defendant makes these disclosures based, in part, on the apparent claim constructions advanced by plaintiff so far in this action, including in its complaint and its disclosures under P.R. 3-1 and 3-2, these disclosures do not admit or suggest that defendant agrees with plaintiff regarding the scope of the asserted claims or any construction of its language. Further, these disclosures do not admit or suggest that defendant agrees with plaintiff that any accused product or functionality meets any limitations of the asserted claims.

Defendant's inclusion of prior art references in its attached claim charts includes the publications themselves as well as the use of any products and systems they describe. Defendant's inclusion of a product or system in its attached claim charts does not constitute an admission that patents, printed publications, or other documents describing the product or system fall within the scope of 35 U.S.C. § 315(e)(2). Defendant will use both documentary and non-documentary evidence to describe the functionality of products or systems.

Defendant will assert that the asserted patent is invalid under 35 U.S.C. § 102(f) in the event defendant obtains evidence that the named inventors of the asserted patent did not invent (either together or in conjunction with other parties) the subject matter claimed in the asserted patent. Should defendant obtain such evidence, it will provide the name of the person(s) from whom and the circumstances under which the invention or any part of it was derived.

Defendant further intends to rely on inventor admissions concerning the scope of the prior art relevant to the asserted patent found in, *inter alia*: the patent prosecution histories for the asserted patent and related patents, patent applications, and/or re-examinations; any deposition testimony of the named inventors on the asserted patent; and the papers filed and any evidence submitted by plaintiff in conjunction with this litigation.

Discovery is in its earliest stages, and defendant's prior art investigation and third party discovery is therefore not yet complete. Defendant will present additional evidence of invalidity if it is obtained in the future, including additional items of prior art and additional documents and testimony located during the course of discovery or further investigation, to show invalidity under 35 U.S.C. § 102(a), (b), (e), and/or (g), and/or § 103. In addition, defendant will assert invalidity under 35 U.S.C. § 102(c), or (d) to the extent that discovery or further investigation yields information forming the basis for such claims.

**I. P.R. 3-3(b) & (c): Anticipation and Obviousness**

Claims 1, 2, 3, 4, and 8 of the '923 patent are anticipated, expressly or inherently, and therefore fail to meet one or more of the requirements for patentability, as detailed in the invalidity claim charts in Exhibits A to N. Additionally, and in the alternative, claims 1, 2, 3, 4,

and 8 of the '923 patent are obvious in view of the state of the prior art, alone or in combination with the references described in these exhibits.

The “inventions” recited in the claims would have been obvious because the prior art, common knowledge, and the nature of the problems, viewed through the eyes of a person ordinarily skilled in the art, suggested the claimed elements. A person ordinarily skilled in the relevant fields would have possessed knowledge and skills rendering him or her capable of combining the prior art references with knowledge in the field and common sense. Moreover, the claims represent well-known combinations of familiar and pre-existing elements, yielding only predictable results. Defendant also provides additional reasons that a person of ordinary skill in the art would have been motivated to combine the identified prior art in the attached exhibits.

In addition to the specific combinations of prior art and the specific combinations of groups of prior art disclosed, defendant will rely on any other combination of any prior art references disclosed herein. Defendant further will rely on combinations disclosed within the prosecution history of the references cited herein.

Additionally, any reference or combination of references that anticipates or renders obvious an asserted independent claim also renders obvious any asserted claim dependent on that independent claim because every element of each dependent claim was known by a person of ordinary skill at the time of the alleged invention, and it would have been obvious to combine those known elements with the independent claims at least as a matter of common sense and routine innovation.

**A. Anticipation**

Claims 1, 2, 3, 4, and 8 of the '923 patent are invalid as anticipated under 35 U.S.C. § 102 in view of the prior art references identified herein as described in the claim charts included in Exhibits A to N, which identify specific examples of where each limitation of claims 1, 2, 3, 4, and 8 are found in the prior art references.

**B. Obviousness**

To the extent any limitation is not explicitly or inherently disclosed by an item of prior art listed in Appendix A and/or in Exhibits A to N, the claimed subject matter as a whole would have been obvious to one skilled in the art at the time of the alleged invention, in view of the state of the art and knowledge of those skilled in the art. The item of prior art on its own as read by one of skill in the art would, therefore, render the relevant claims invalid for obviousness under 35 U.S.C. § 103(a).

In addition, the references identified in Appendix A and in Exhibits A to N render claims 1, 2, 3, 4, and 8 of the '923 patent obvious when the references are read in combination with each other, and/or when read in view of the state of the art and knowledge of those skilled in the art. Any of the references disclosed herein may be combined to render obvious (and therefore invalidate) plaintiff's asserted claims. Defendant may rely on a subset or all of the references identified in Appendix A, including all references in Exhibits A to N, for purposes of obviousness depending on the Court's claim construction, positions taken by plaintiff during this litigation, and further investigation and discovery. Defendant may rely on combinations with any reference in Exhibits A to N and any of the other references disclosed herein regarding the

'923 patent, including combinations with any of the patents, publications or systems identified herein as prior art to the '923 patent.

In accordance with P.R. 3-3(b), prior art references rendering claims 1, 2, 3, 4, and 8 of the '923 patent obvious, alone or in combination with other references, are discussed above and included in Exhibits A to N, which show representative specific combinations of references, including citations to relevant disclosures in those references. Moreover, to the extent the foregoing references are found not to anticipate claims 1, 2, 3, 4, and 8, the foregoing references render claims 1, 2, 3, 4, and 8 obvious either alone or in combination with one or more of the other references identified in Appendix A under P.R. 3-3(a). Reasons that a person of ordinary skill in the art would have been motivated to combine the identified prior art are provided herein, including the attached exhibits and the discussion in Section IV below.

In particular, defendant contends that claims 1, 2, 3, 4, and 8 of the '923 patent would have been obvious in view of the primary prior art references identified in Exhibits A to N. The primary references teach all of the limitations of the '923 patent's asserted claims. To the extent any claim limitations are found to be missing from the primary references, in addition to the references designated for combination with the primary references, described in each exhibit, it would have been obvious to one of ordinary skill to add the missing limitation based on the corresponding disclosure of that limitation in Exhibits A to N. For example, to the extent a primary reference in Exhibits A to N is found to be missing a particular limitation of an asserted claim, it would have been obvious to combine that primary reference with the disclosure of that limitation in any one of the many references explicitly disclosing that element, including the disclosures of that element set out in Exhibits A to N.



Furthermore, there is no evidence of any indicia of nonobviousness, including any long-felt but unsolved need, copying, failure of others, commercial success due to the patented invention, industry praise, unexpected results, and industry skepticism and licensing.

**No long-felt but unsolved need.** There was no long-felt but unsolved need that the '923 patent's asserted claims purportedly solve. The concepts described in the '923 patent were all well known before the alleged invention date of the '923 patent, as evidenced by the patent itself, the file history and references cited therein, and the prior art identified herein, including identified in the above-referenced exhibits.

**No copying.** Plaintiff has provided no evidence that the accused functionality for the '923 patent was copied, or more specifically, that any functionality that practices the '923 asserted claims were copied. *See Amazon.com, Inc. v. Barnesandnoble.com, Inc.*, 239 F.3d 1343, 1366 (Fed. Cir. 2001) (allegedly copied feature must be an embodiment of the patented claims).

**No failure of others.** Plaintiff has not shown that there is any evidence of a failure of others to invent or use the claimed techniques before the alleged invention date of the '923 patent. Nor could it, as claims 1, 2, 3, 4, and 8 recite concepts that were already known before the alleged invention of the '923 patent, as described above and in the references described in charts attached hereto, including in the above-referenced exhibits.

**No commercial success.** Plaintiff has not provided any evidence of alleged success of its products or any other products is due to the alleged invention claimed in the '923 patent. A patentee bears the burden of demonstrating that the relevant commercial success is attributable to the claimed invention "as opposed to other economic and commercial factors unrelated to the technical quality of the patented subject matter." *Cable Elec. Prods, Inc. v. Genmark, Inc.*, 770

F. 2d 1015, 1027 (Fed. Cir. 1987). Here, plaintiff has not shown and cannot show that plaintiff's success is due to the alleged invention of the '923 patent. *See, e.g., Windsurfing Int'l Inc. v. AMF*, 782 F. 2d 995 (Fed. Cir. 1986) (considerations such as intervening, non-covered technological innovations, popularity of accessories, and advertising expense are all relevant to the nexus determination).

If any commercial success is due to any of the concepts discussed in the '923 patent, those concepts are also present in the prior art, as described above, and thus does not show any commercial success that is relevant to the question of obviousness. *Tokai Corp. v. Easton Enters., Inc.*, 632 F.3d 1358, 1369-70 (Fed. Cir. 2011) ("If commercial success is due to an element in the prior art, no nexus exists."); *In re Huai-Hung Kao*, 639 F.3d 1057, 1068 (Fed. Cir. 2011) ("Where the offered secondary consideration actually results from something other than what is both claimed and novel in the claim, there is no nexus to the merits of the claimed invention."); *Ormco Corp. v. Align Tech., Inc.*, 463 F.3d 1299, 1312 (Fed. Cir. 2006) ("[I]f the feature that creates the commercial success was known in the prior art, the success is not pertinent.").

**No industry praise.** Plaintiff has presented no evidence of industry praise for the alleged invention of the '923 patent or any functionality that allegedly practices the '923 patent. To the extent any praise is related to any functionality that allegedly practices the '923 patent, that praise is not due to the allegedly novel features of the '923 patent, but instead only to features present in the prior art, which is not a sufficient nexus to be relevant to the question of industry praise for purposes of obviousness. *See Muniauction, Inc. v. Thomson Corp.*, 532 F.3d 1318, 1328 (Fed. Cir. 2008).

**No unexpected results.** There is no evidence of any unexpected results when the elements of the '923 asserted claims were combined. These prior art systems, as described in the above-referenced exhibits, disclosed the same combination of elements, and the same result of that combination, that is recited in claims 1, 2, 3, 4, and 8 of the '923 patent. Thus, there were no unexpected results that arose from combining the well-known elements in claims 1, 2, 3, 4, and 8 of the '923 patent.

**No industry skepticism.** Plaintiff has presented no evidence that others were skeptical before the alleged invention date of the '923 patent of the viability of what is claimed in the '923 patent. In fact, there was no industry skepticism concerning the claimed concepts that predates the '923 patent. As discussed above, many companies and individuals were already using the concepts claimed in the '923 patent. Thus, there was no industry skepticism that using or combining these well-known prior art concepts would be viable; others in the field were already combining them in the same manner as arranged in the '923 asserted claims.

**Simultaneous Invention.** As demonstrated by the evidence cited and described herein and in the attached exhibits, individuals working independently of the '923 named inventors simultaneously or near simultaneously invented the alleged invention of claims 1, 2, 3, 4, and 8 of the '923 patent. This evidence supports a finding that claims 1, 2, 3, 4, and 8 would have been obvious to a person of ordinary skill in the art at the time of the invention. *See Geo. M. Martin Co. v. Alliance Mach. Sys.*, 618 F.3d 1294, 1305-06 (Fed. Cir. 2010) (“Independently made, simultaneous invention, made within a comparatively short space of time, are persuasive evidence that the claimed apparatus was the product only of ordinary mechanical or engineering skill.”) (citing *Concrete Appliances Co. v. Gomery*, 269 U.S. 177, 184 (1925)) (internal

quotations omitted); see also *Ecolchem, Inc. v. So. Cal. Edison Co.*, 227 F.3d 1361, 1379 (Fed. Cir. 2000).

**C. P.R. 3-3(d): 35 U.S.C. § 112**

The following contentions, made under P.R. 3-3(d), are subject to revision and amendment under Federal Rule of Civil Procedure 26(e) and the Orders of record in this matter to the extent appropriate in light of further investigation and discovery regarding the defenses, the Court's construction of the claims at issue, and the review and analysis of expert witnesses.

To the extent that the following contentions reflect constructions of claim limitations consistent with or implicit in plaintiff's Infringement Contentions, no inference is intended nor should any be drawn that defendant agrees with plaintiff's claim constructions, and defendant will contest such claim constructions. Defendant offers such contentions in response to plaintiff's Infringement Contentions and without prejudice to any position they may ultimately take as to any claim construction issues.

Because discovery is ongoing and additional claim construction may be necessary for plaintiff's asserted claims, defendant may assert additional grounds for the invalidity of claims 1, 2, 3, 4, and 8 based on 35 U.S.C. § 112.

**1. Section 112(2) Invalidity Contentions**

Based on plaintiff's apparent construction of the claims of the asserted patent (as expressed in its Infringement Contentions), defendant lists below the grounds on which it presently contends that claims 1 and 8 of the '923 patent are invalid under 35 U.S.C. § 112(2) for indefiniteness. Regarding each of the below claim limitations, the patent fails to particularly point out and distinctly claim the subject matter that the inventor regards as the invention.

Deficient Claim Limitation
“a message of the messages” in independent claim 1
“the messages” in dependent claim 8, in view of “a message of the messages” in independent claim 1
“diverting . . . to a controlling entity” in independent claim 1
“controlling entity” in independent claim 1
“controlling” in independent claim 1

#### IV. REASONS TO COMBINE

For at least the reasons described above and below in the examples provided, as well as in the attached claim charts, it would have been obvious to one of ordinary skill in the art to combine any of a number of prior art references, including any combination of those identified in exhibits corresponding to the '923 patent to meet the limitations of claims 1, 2, 3, 4, and 8. As such, defendant's identification of exemplary combinations is without limitation to defendant identifying other invalidating combinations as appropriate.

Defendant believes that no showing of a specific motivation to combine prior art is required to combine the references disclosed herein and in the attached charts. As reflected in the attached exhibits, and in the references themselves, there was a reason to make each combination—each combination of art would have produced no unexpected results, and each combination at most would simply represent a known alternative to one of ordinary skill in the art. *See KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 414-18 (2007) (rejecting the Federal Circuit's “rigid” application of the teaching, suggestion, or motivation-to-combine test, instead espousing an “expansive and flexible” approach). As reflected in the attached exhibits, in the

references themselves, and the discussion herein, claims 1, 2, 3, 4, and 8 of plaintiff's patent combine familiar elements according to known methods, yielding predictable results. Moreover, one of ordinary skill in the art would be prompted to modify each of these references based on design incentives or other market forces. This is true for references in the same field of endeavor as well as for references in a different field of endeavor, as one of skill would understand that techniques used to improve devices in a related or analogous field could improve similar devices in the same way. No specific reference explicitly spelling out all aspects of a proposed combination is required to show obviousness; indeed, the Supreme Court has explained that a person of ordinary skill is "a person of creativity, not an automaton," and "in many cases a person of ordinary skill in the art will be able to fit the teachings of multiple patents together like pieces of a puzzle." *Id.* at 420-21. As reflected in the attached exhibits, the discussion herein, and in the references themselves, the elements of plaintiff's asserted patent claims are all disclosed in the art before the asserted patent's earliest possible priority dates, and one of skill would readily fit their teachings together.

Nevertheless, in accordance with the Patent Rules, and in addition to the information contained elsewhere in these contentions, including the exhibits, defendant hereby identifies below additional motivations and reasons to combine the cited art. To determine whether there is a reason to combine the known elements in the manner claimed by a patent, a court can "look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art." *Id.* at 418. For example, obviousness can be demonstrated by showing "there existed at the time of invention a known problem for which there was an obvious

solution encompassed by the patent's claims." *Id.* at 420. "[A]ny need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed." *Id.* Common sense also teaches that "familiar items may have obvious uses beyond their primary purposes, and in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle." *Id.*

Applying these principles, it would have been obvious to a person of ordinary skill in the art at the time the application that issued as the asserted patent was filed to combine, modify, or use the teachings of the prior art to make the purported invention of the patent, including by making each of the combinations identified above. The motivation to combine the teachings of the prior art references disclosed herein can be found in each of (1) the references themselves; (2) the nature of the problem being solved; (3) the express, implied, and inherent teachings of the prior art; (4) the knowledge of persons of ordinary skill in the art; (5) the fact that the prior art is generally directed towards the subject matter of each respective asserted patent; and (6) the predictable results obtained in combining the elements of the prior art.

The '923 patent is obvious in light of the state of the art and/or knowledge of a person of ordinary skill in the art, as demonstrated by prior art and references in Exhibits A to N, to the extent the claims are not invalid under 35 U.S.C. §§ 101, 102, and/or 112.

The primary references in Exhibits A to N are identified above. To the extent these references are found to not anticipate claims 1, 2, 3, 4, and 8, they render the claim obvious, whether standing alone, or when combined with knowledge of the ordinary artisan, the nature of the problem to be solved, and/or the references in Exhibits A to N.

To the extent the references discussed herein or in Exhibits A to N are found to lack particular elements of claims 1, 2, 3, 4, and 8, those elements would have represented mere obvious modifications of the references themselves. Each asserted claim would have been obvious in view of the primary references alone. All of the references identified Exhibits A to N are in the same field of endeavor, and in particular, relate to controlling the rights and behavior of applications in a communication terminal. Moreover, the combination of the references in Exhibits A to N would simply be a matter of combining known elements in a known manner to achieve predictable results. To the extent that any limitation is determined not to be disclosed in any of these references, it would have been obvious to combine any of these references to provide the allegedly missing limitation.

Furthermore, all of the references identified herein regarding the '923 patent address the wide range of security measures in communication terminals in considering possible solutions to problems identified in the '923 patent, including the misuse of applications in communication terminals. A person of ordinary skill in the art would have looked to other devices in the same field, such as the prior art and other references, because all of these references share many of the same or substantially similar components. The use of such components is expressly described in Exhibits A to N. A person of ordinary skill in the art would therefore have been motivated to combine these components, knowing that these well-known elements would achieve their purposes in combination, without any difficulty and without any unexpected results.

One of ordinary skill also would have been motivated to combine any of the above references together to yield predictable results, as combining the references would simply entail combining known elements by known methods in the art. In addition, any such combination



would involve the simple substitution of one known, equivalent element for another. Such combinations would have been obvious to try because there were only a finite number of predictable solutions. Any such combination would yield predictable results using known techniques and would involve the simple substitution of one known, equivalent element for another. For example, the prior art contains numerous disclosures directed toward controlling the rights and behavior of applications in a communication terminal.